



April 15, 2024

- To: Army Corps of Engineers
- **Re:** Corps of Engineers Agency Specific Procedures to Implement the Principles, Requirements, and Guidelines for Federal Investments in Water Resources, 89 Fed. Reg. 12,066 (COE-2023-0005)

The Institute for Policy Integrity at New York University School of Law (Policy Integrity)¹ respectfully submits the following comments to the Army Corps of Engineers (the Corps) on its proposed Agency Specific Procedures to Implement the Principles, Requirements, and Guidelines for water resources investments (ASPs or the proposal).² Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

These comments recommend that the Corps should:

- Integrate OMB's Circular A-94, Circular A-4, and ecosystem service guidelines more fully into its ASPs.
- Revise the definition of "net public benefits" to explicitly include indirect effects, as well as private effects, and to capture total effects even as the incidence of effects (like to Tribes) may also be assessed in distributional analysis.
- Clarify that more rigorous analysis may be warranted not just if a dollar threshold is exceeded but also if significant, non-monetized effects are likely to occur.
- Offer more explicit guidance on considering a fuller range of flooding effects in the baseline, and more broadly cross-reference OMB's guidance on forecasting baselines.
- Update the final ASPs to reflect OMB's final Ecosystem Service Guidance, and remove outdated references to older guidance documents.
- Explicitly follow OMB guidance on risk, and encourage analysts to consider uncertainty about baseline conditions, like the functionality of local flood mitigation efforts.
- Not set any upper limit for the temporal scope of analysis, and instead follow OMB guidance on both timeframes and discount rates.
- Endorse use of the best available estimates of the value of statistical life as well as the social cost of greenhouse gases.
- Eliminate the false distinction between the economic, environmental, and social categories.

For several of these recommendations, the comments also offer proposed redlines.

¹ This document does not purport to present the views, if any, of New York University School of Law.

² Corps of Engineers Agency Specific Procedures to Implement the Principles, Requirements, and Guidelines for Federal Investments in Water Resources, 89 Fed. Reg. 12,066 (proposed Feb. 15, 2024) [hereinafter Proposed Rule]. Though the Proposal distinguishes between the Army and the Corps, for simplicity these comments refer collectively just to the Corps.

I. The Corps Should More Fully Integrate OMB Guidance into Its ASPs

The proposal makes valuable progress on moving away from the historical and inefficiently narrow focus on national economic development to the exclusion of other essential objectives like environmental quality and distributional considerations.³ The proposal explains that the new "heart" of the ASPs is a broader evaluation of economic, environmental, and social benefits and costs.⁴ To inform the evaluation of benefits and costs, the proposal repeatedly refers to the guidance that the Office of Management and Budget (OMB) has prepared on benefit-cost analysis: in particular, Circular A-94 on benefit-cost analysis of federal programs,⁵ Circular A-4 on benefit-cost analysis of regulations,⁶ and guidance on evaluating ecosystem services.⁷ For example, the proposal notes an intent to "generally follow Circulars A-4 and A-94" for the evaluation framework;⁸ it cites Circulars A-4 and A-94 for methods to evaluate benefits and costs, including monetization and discounting;⁹ it seeks to "align [the] disclosure, consideration, and assessment of risk and uncertainty with Circulars A-4 and A-94 to the extent practicable"¹⁰; and it raises the possibility of drawing from the finalized Ecosystem Services Guidance.¹¹

Because Circular A-94, Circular A-4 (from which Circular A-94 draws heavily¹²), and the Ecosystem Services Guidance reflect the best available federal guidance on aggregating and comparing heterogeneous effects to help evaluate the tradeoffs involved in federal investments and policy decisions, the Corps should hew even more closely to this OMB guidance throughout its final ASPs. The Water Resources Development Act of 2007 requires the Corps to "use [the] best available economic principles."¹³ Circulars A-94 and A-4, and the Ecosystem Services Guidance, are rigorous, state-of-the-art guidance documents that embody the best available economic principles. The documents recently underwent comprehensive interagency review and public comment processes, during which experts from across the executive branch and from outside government offered insights.¹⁴ Both Circular A-4 and the Ecosystem Services Guidance also underwent peer review.¹⁵

⁶ Available at https://www.whitehouse.gov/wp-content/uploads/2023/11/CircularA-4.pdf (revised Nov. 9, 2023).

 7 OMB, Guidance for Assessing Changes in Environmental and Ecosystem Services in Benefit-Cost

ANALYSIS (2024), https://www.whitehouse.gov/wp-content/uploads/2024/02/ESGuidance.pdf

[https://perma.cc/W5ZX-A8BP] [hereinafter "ECOSYSTEM SERVICES GUIDANCE"].

⁸ Proposed Rule, 89 Fed. Reg. at 12,086.

¹² See Circular A-94 at 7, 8, 11, 14, 16, 17 (cross-referencing Circular A-4 for further details on key points). ¹³ 42 U S C 8 1962-3(b)(3)

³ See Proposed Rule, 89 Fed. Reg. at 12,066–67.

⁴ *Id.* at 12,091.

⁵ Available at https://www.whitehouse.gov/wp-content/uploads/2023/11/CircularA-94.pdf (revised Nov. 9, 2023).

⁹ *Id.* at 12,087.

¹⁰ *Id.* at 12,088.

¹¹ *Id.* at 12,073, 12,086–87.

¹³ 42 U.S.C. § 1962-3(b)(3).

¹⁴ See Issuance of Revised OMB Circular No. A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs," 88 Fed. Reg. 77,615, 77,615 (Nov. 13, 2023); Issuance of Revised OMB Circular No. A-4, "Regulatory Analysis," 88 Fed. Reg. 77,615, 77,615 (Nov. 13, 2023); Richard L. Revesz & Arati Prabhakar, *Accounting for Ecosystem Services in Benefit-Cost Analysis*, OMB BRIEFING ROOM BLOGS (Aug. 1, 2023), https://perma.cc/HR37-3T8W.

¹⁵ See OMB, EXPERTS CHOSEN FOR OMB CIRCULAR A-4 PEER REVIEW (2023), https://www.whitehouse.gov/wp-content/uploads/2023/06/Peer-Reviewers-for-Circular-A-4.pdf [https://perma.cc/TR4J-NUX6]; OMB, EXPERTS CHOSEN FOR OMB ECOSYSTEM SERVICES GUIDANCE PEER REVIEW (2023), https://www.whitehouse.gov/wp-content/uploads/2023/09/Ecosystem-Services-Guidance-Peer-Review-Panel-9_15_23.pdf [https://perma.cc/8LWV-6HGV].

Though Circular A-94 specifically exempts water resource projects from its requirements,¹⁶ the Corps is free to voluntarily follow any available guidance on best economic practices. Indeed, because many of the best practices for agency benefit-cost analysis are already enshrined in peerand public-reviewed OMB guidance, the Corps could simplify its ASPs by replacing various sections with appropriate cross-references to Circulars A-94 and A-4 and the Ecosystem Services Guidance. The next part of this letter makes further recommendations on specific places where the Corps can more fully integrate these guidance documents into the ASPs.

II. The Corps Should Amend Specific Sections to Reflect Best Economic Practices

This part recommends where the Corps should more fully integrate OMB Guidance into its ASPs. Additional cross-references can at least supplement if not substitute for certain sections of the ASPs. In addition, this part identifies other best economic practices that should be incorporated into the ASPs.

A. Recommended Changes to Section 234.4: Objectives and Applicability

In the preamble discussion of Section 234.4, the Corps should consider cross-referencing Circular A-94 to describe how best to maximize "net public benefits" and analyze distribution.¹⁷ Indeed, much of the current preamble text could be replaced with such cross-references. Short of that, the Corps should ensure that "net public benefits" explicitly includes "indirect" effects, as well as private effects, and should capture total effects even as the incidence of effects (like Tribal effects) may also be separated out into distributional analyses.

i. The Corps Should Explicitly Include Important "Indirect" Effects¹⁸

The proposal never mentions consideration of indirect, ancillary, countervailing, or co-effects. By contrast, the discussion of "net public benefits" refers to the evaluation of "*direct* economic and social effects"¹⁹ in a way that could be interpreted to *exclude* consideration of indirect effects. Best economic practices, as enshrined in Circulars A-4 and A-94, hold that it is essential to consider indirect effects (see Circular A-4's section on "additional" benefits and costs²⁰; see also Circular A-94²¹). Though the proposal elsewhere emphasizes ensuring that the "scope and scale of watershed assessments . . . be large enough" to reflect relevant public impacts, and specifically includes "downstream relationships,"²² such references may not be sufficient to ensure that analysts and decisionmakers pay due attention to important indirect effects. For

¹⁶ See Circular A-94 at 4. Note that the exemption is due to historical practices; nothing substantive about the analysis of water resource investments merits departure from basic principles for economic analysis.

¹⁷ Proposed Rule, 89 Fed. Reg. at 12,072.

¹⁸ The focus on "important" effects reflects that if an effect is costly to analyze and is also unlikely to inform the magnitude or sign of net benefits or change the comparison of alternatives, it can be excluded from analysis. *See* Circular A-4 at 39 ("Your analysis should look beyond the obvious benefits and costs of your regulation and consider any important additional benefits or costs, when feasible."); Circular A-94 at 8 ("Agencies should seek to balance performing the most comprehensive analysis possible with sensitivity to the resources required."). ¹⁹ Proposed Rule, 89 Fed. Reg. at 12,087 (emphasis added); *see also id.* at 12,066 ("Contributions to NED under P&G . . . are the *direct* net benefits that accrue in the planning area and the rest of the Nation.") (emphasis added).

²⁰ Circular A-4 at 39–40.

²¹ Circular A-94 at 7 ("[B]oth direct and indirect benefits and costs [should be recognized]."); *see also* RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 55–65 (2009) (arguing that benefit-cost analyses should account for both ancillary benefits and costs).

²² Proposed Rule, 89 Fed. Reg. at 12,081–82.

instance, without clear instructions to include all relevant indirect effects, analysts may omit effects accruing to people outside a "watershed," no matter how broadly that term is conceived—but those people's location does not make the effects accruing to them any less important.

Indirect effects are important in evaluating water resource projects. For example, walling off one area of a shoreline can cause or exacerbate flooding elsewhere. In the 2022 Coastal Storm Risk Management Report for the Charleston Peninsula, South Carolina,²³ the Corps found that shore-based measures may increase flooding in Rosemont, a historically Black neighborhood.²⁴ However, the Corps deemed extending structural measures to encompass Rosemont to be cost-prohibitive due to "topographical and other constraints."²⁵ Without commenting on that particular determination, clearly it would have been a mistake for the Corps to exclude consideration of such indirect effects. To ensure indirect effects are given appropriate attention, the Corps should explicitly refer to indirect effects. (See suggested redline below.)

ii. The Corps Should Include Private Effects

The proposed text on "net public benefits" could be misread to suggest that effects accruing to private individuals do not count. As the Corps implies elsewhere, some may conflate "public benefits" with non-excludable, non-rivalrous (i.e., non-private) "public goods."²⁶ Yet in fact, as the Corps explains, even private "[c]ost-savings to industry . . . benefit society and therefore [sh]ould be accounted for in the analysis,"²⁷ as should other benefits that accrue to private individuals or entities, like "avoided property damages."²⁸ The Corps should clarify that its focus on maximizing net benefits to society includes consideration of private effects. Consistent with best economic practices, all relevant effects should be considered in the benefit-cost analysis; the incidence of to whom those effects accrue can then be described in a distributional analysis. Failing to include important effects to all relevant parties could distort the analysis by, for example, misleadingly presenting only one side of a transfer. (See suggested redline below.)

iii. The Corps Should Include Tribal Effects in the Total Accounting of Net Public Benefits *and Also* in a Distributional Analysis

Similarly, the Corps seeks comments on "whether the Corps should identify, characterize, and evaluate the benefits to the Tribal Nation separately, *as opposed to including them in a broader assessment of the overall benefits*."²⁹ But these are not mutually exclusive options. The Corps should both include benefits to Tribal Nations in assessments of overall benefits *and also* break benefits and costs to Tribal Nations out in a distributional analysis when useful and feasible. Doing so is not double counting, as one analysis is about understanding net effects, while the other focuses on the incidence of costs and benefits across relevant groups.

²³ U.S. ARMY CORPS, CHARLESTON PENINSULA, SOUTH CAROLINA COASTAL STORM RISK MANAGEMENT FINAL INTEGRATED FEASIBILITY REPORT/ENVIRONMENTAL IMPACT STATEMENT (2022) [hereinafter CHARLESTON STUDY].
²⁴ Id. at 242–44; John Ramsey, As Charleston Sea Wall Plan Heads Through Congress, Local Doubts Linger, POST

[&]amp; COURIER (July 16, 2022), https://www.postandcourier.com/environment/as-charleston-sea-wall-plan-headsthrough-congress-local-doubts-linger/article 529ea92c-fca3-11ec-a327-a3ecfc994d25.html.

²⁵ See CHARLESTON STUDY, *supra*, at 273 & Appendix C, C-57.

²⁶ Proposed Rule, 89 Fed. Reg. at 12,070.

²⁷ Id.

²⁸ Id.

²⁹ Id. at 12,091 (emphasis added).

iv. Recommended redline³⁰

[234.4](c) *Net public benefits.* The Corps shall strive to maximize net <u>public</u>-benefits to society, weighing direct and indirect effects, including. <u>Public benefits encompass</u> economic, environmental, and other social effects, whether they accrue to private persons or to society as a whole. <u>goals</u>, The Corps shall include monetized and un-monetized effects, and ensure allow for the consideration of both quantified and unquantified effects. The Corps shall take a comprehensive view in evaluating net public benefits and also conduct distributional analysis, when useful and feasible, to better understand effects to different groups and populations.

B. Recommended Changes to Section 234.5: Level of Analysis

As the proposal acknowledges elsewhere, economic, environmental, and social effects are important to assess quantitatively or qualitatively even when they cannot be monetized. Therefore, the scope of analysis (i.e., whether a "standard" or scaled-down analysis is conducted) should be proportional not just to the monetized dollar-value of Federal investments, but also and separately to the significance of other important effects. A project with a low Federal investment or with no monetized effects may still deserve more rigorous scrutiny and more collection of "original" data and research if there are highly significant non-monetized effects.³¹

To that end, the Corps should better explain how its table of "Monetary Threshold Criteria" should be applied when there are important non-monetized effects, and should clean up text that might be misread as ignoring the importance of non-monetized effects.

Recommended redline:

[234.5](a) *Standard and scaled levels of analysis*. . . . In general, the level of analysis should be commensurate with the significance of the Federal investment in terms of dollar value and or the potential environmental or other significant impacts.

. . .

(c) *Scope and magnitude of analysis required*. The threshold criteria for project, programmatic, and individual plan level analysis for Army Civil Works is shown in Table 1.... However, for a particular activity, a different level of analysis may be more appropriate, and projects/programs may depart from these guidelines defaults where such a departure is justified, such as when highly-significant, non-monetized effects are likely and warrant additional analysis....

C. Recommended Changes to Section 234.6: The Planning Process

The Corps should consider adding to the preamble additional cross-references to Circulars A-94 and A-4, which reflect best economic practices on key topics like forecasting the baseline (section 234.6(g)) and identifying alternatives (section 234.6(h)).

In accordance with best economic practices for forecasting the baseline, the Corps should provide further guidance on consideration of the effects of climate change. Consistent with directions in the preamble and proposed regulatory text, climate change should be forecasted in

³⁰ Throughout this comment letter, proposed insertions are in red and proposed deletions are in blue.

³¹ Proposed Rule, 89 Fed. Reg. at 12,099 (noting the emphasis on "original" data in a "standard" analysis).

both the baseline and different alternative scenarios.³² The Corps also emphasizes its commitment to using the best available actionable science to predict climate change.³³ But in past practice, climate change estimates from the Corps have often been lower than projections from the National Oceanic and Atmospheric Administration.³⁴ This may be due to embedded outdated practices in guidance,³⁵ which the Corps can more explicitly update in the final ASPs. Better estimation of scenarios in the baseline can significantly shape the extent of effects evaluated in the benefit-cost analysis.

The Corps should also offer explicit guidance on considering a fuller range of flooding effects in the baseline. Historically, the Corps has focused on coastal storm-related flooding rather than the full-range of flooding-related effects (e.g., tidal flooding, rainfall event-related flooding, and riverine discharges).³⁶ This is significant to determining net benefits and their distribution, in part because certain alternatives that mitigate coastal storm surge-related flooding can worsen effects of other flooding. For example, Hurricane Harvey caused damage mostly because of its severe rainfall, not its storm surge, but a future storm surge barrier could limit drainage through Galveston Bay and into the Gulf of Mexico,³⁷ meaning a Harvey-like event could be more damaging in the future. Some alternatives may mitigate multiple types of flooding and thus contribute additional benefits appropriate for consideration in the benefit-cost analysis. The Water Resources Development Act of 2022 authorizes the Corps to now consider these different types of flooding in its analysis,³⁸ and the proposal provides an opportunity for the Corps to add the necessary guidance on comprehensively weighing flood risk. Consideration of this fuller suite of flood-related costs and benefits is consistent with best economic practices.

³² See id. at 12,084–85.

³³ *Id.* at 12,078, 12,088.

³⁴ Compare U.S. ARMY CORPS OF ENG'RS, NEW YORK-NEW JERSEY HARBOR AND TRIBUTARIES COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY 176 (2022) (showing an intermediate relative sea-level rise of 1.8 feet by the year 2100), with NAT'L OCEANIC & ATMOSPHERIC ADMIN., GLOBAL AND REGIONAL SEA LEVEL RISE SCENARIOS FOR THE UNITED STATES: UPDATED MEAN PROJECTIONS AND EXTREME WATER LEVEL PROBABILITIES ALONG U.S. COASTLINES 23 tbl.2.5 (2022) (showing intermediate relative sea level rise in the Northeast region as 1.3 meters (4.26 feet), ~2.4 times greater than the New York-New Jersey figure). See also U.S. ARMY CORPS OF ENG'RS, MIAMI-DADE COASTAL STORM RISK MANAGEMENT DRAFT INTEGRATED FEASIBILITY REPORT AND PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT 171 fig. 3-2 (2020) [hereinafter MIAMI-DADE REPORT] (showing intermediate projections for relative sea level rise as aligning with NOAA's lower intermediate projections instead of the true intermediate projections, and lower curves across the board).

³⁵ See U.S. Army Corps of Eng'rs, CECW-P, Engineer Regulation 1105-2-100, Planning Guidance Notebook E-142 (2000),

https://www.publications.usace.army.mil/portals/76/publications/engineerregulations/er_1105-2-100.pdf [https://perma.cc/HA5J-WRP5] (referencing 1987 guidance on sea level rise).

³⁶ See, e.g., MIAMI-DADE REPORT, *supra* note 34, at 192 ("The intent of this study is project is to protect against coastal storm risk and not necessarily nuisance flooding from rainfall or smaller tidal events.").

³⁷ See, e.g., Jake Bittle, The 'Ike Dike' Is the Army Corps of Engineers' Largest Project Ever. It May Not Be Big Enough., GRIST (Apr. 24, 2023), https://grist.org/extreme-weather/houston-ike-dike-army-corps-flooding/ [https://perma.cc/A6W2-2FRP]; see also Letter from Natalie Snider, Associate Vice President of Climate Resilience Coasts and Watersheds, Env't Def. Fund, to Michael Connor, Assistant Sec'y of the Army, Civ. Works, U.S. Army Corps of Eng's 6 (Nov. 10, 2021), https://www.edf.org/sites/default/files/documents/National%20USACE%20Sign-On%20Letter%2011-10-21.pdf [https://perma.cc/8WV7-92DW].

³⁸ Water Resources Development Act of 2022, Pub. L. 117-262 § 8106, 136 Stat. 3699, 33 U.S.C. § 2282g.

D. Recommended Changes to Section 234.7: Evaluation Framework

Much of the preamble and regulatory text for Section 234.7 could instead simply cross-reference OMB guidance for best practices on evaluating alternatives. The Corps could consider replacing elements of its ASPs that are redundant with OMB guidance with such cross-references and instead focusing on issues with unique considerations in the water resource context, like adaptive management, climate change, resilience, and Tribal treaty rights.

i. The Corps Should Remove Outdated References and Update for the Final Ecosystem Service Guidance

The Corps "proposes to consider adoption of any finalized OMB guidance on ecosystem services (proposed at 88 FR 50912) for any final rule issued for the Corps' ASPs to evaluate the social and economic outcomes resulting from environmental changes."³⁹ That Ecosystem Services Guidance has now been finalized,⁴⁰ and so the Corps should update its final ASPs to follow the recommendations of that document, which contains the government's most recent and up-to-date guidance on this key topic.

By contrast, the Corps should remove references to outdated guidance. The proposal mentions continuing to "use existing frameworks and practices [for evaluation] (*e.g.*, aspects of ER 1105–2–100) as long as they are relevant and acceptable under the PR&G framework."⁴¹ ER 1105–2–100, however, was drafted in 2000, and contains various outdated provisions, including reliance on a 1987 estimate of sea-level rise,⁴² referring to ecosystem services only as "non-monetized . . . benefits,"⁴³ and seemingly endorsing outdated discount rates.⁴⁴ The reference to ER 1105–2–100 therefore should be stricken, as it could be read to endorse such outdated economic thinking. Aspects of ER 1105–2–100 that remain consistent with up-to-date economic practices could still be employed as "existing frameworks and practices . . . as long as they are relevant and acceptable," but removing the direct reference to the decades-old document will avoid inadvertently suggesting that the Corps specifically endorses individual provisions of ER 1105–2–100 that have grown stale.

Recommended redline:

To the extent applicable, the Corps may use existing frameworks and practices (e.g., aspects of ER 1105 2 100) as long as they are relevant and acceptable under the PR&G framework.

³⁹ Proposed Rule, 89 Fed. Reg. at 12,086–87.

⁴⁰ *Available at* https://www.whitehouse.gov/wp-content/uploads/2024/02/ESGuidance.pdf (published Feb. 28, 2024).

⁴¹ Proposed Rule, 89 Fed. Reg. at 12,086.

⁴² ER 1105–2–100, *supra*, at E-142.

⁴³ *Id.* at E-299 ("The conceptual basis for evaluating nonmonetized NER benefits is society's value toward the increase in ecosystem services.").

⁴⁴ *Id.* at H-47 (Appendix H, updated in 2007, seems to endorse the outdated discount rates of 4.875% and 7%, as opposed to the updated central rate of 2% in Circulars A-94 and A-4).

ii. The Corps Should Explicitly Follow OMB Guidance on Risk and Uncertainty

OMB Circulars A-94 and A-4 reflect careful thinking, informed by public comment and peer review, on risk and uncertainty. The Corps should cross-reference that guidance in the regulatory text, just as the proposed ASPs already do in the section on evaluating costs and benefits.

As noted by the Corps, the consideration of how much current flood risk may increase due to climate change is one place where discussion of uncertainty may be particularly helpful.⁴⁵ The Corps should offer further guidance recommending that analysts discuss their assumptions around local and state efforts to mitigate flood risk. For instance, an overestimation of local and state action can lead to a significant underestimation of benefits of proposed projects and their alternatives. Discussion of the uncertainties concerning local and state flood mitigation efforts, consistent with the best practices in Circulars A-94 and A-4, would provide information helpful to decisionmakers selecting between alternatives.

Recommended redline:

[234.7](d) *Risk and uncertainty*. . . . Risks and uncertainties shall be identified and described in a manner that is clear and understandable to the public and decision-makers. OMB Circulars A-4 and A-94 provide guidance on consideration of risk and uncertainty. This includes describing the nature, likelihood, and magnitude of risks, as well as the uncertainties associated with key supporting data, projections, and evaluations of competing alternatives. Uncertainties may also exist about baseline conditions, such as the functionality of local and state flood mitigation efforts. . . .

iii. The Corps Should Follow OMB Guidance on Timing, Without Adopting Any Upper Limit for the Temporal Scope of Analysis

The proposal moves away from the current default 50-year analytical timeframe to "a period of analysis sufficient to capture all important effects of each alternative."⁴⁶ That approach is reasonable and consistent with OMB guidance. However, the proposal also "solicits comment on whether there should be an upper limit established for the period of analysis," seeming to suggest that allowing too much flexibility on temporal scope could sacrifice "the importance of consistency and comparability in evaluating alternatives and projects."⁴⁷ Adopting a rigid upper limit would be a mistake.

The preamble on Section 234.6(h) (Formulating Alternatives) already explains how to balance these concerns. Within a single project analysis, "the same period of analysis should be used in alternatives analysis,"⁴⁸ to ensure consistency when comparing across alternatives. However, between projects, arbitrarily setting an analytical timeframe that is too short could "bias"⁴⁹ results. The appropriate analytical timeframe should be "long enough to account for [important] costs and benefits including the principal significant long-term effects."⁵⁰

⁴⁵ Proposed Rule, 89 Fed. Reg. at 12,089.

⁴⁶ *Id.* at 12,090.

⁴⁷ Id.

⁴⁸ *Id.* at 12,085–86.

⁴⁹ *Id.* at 12,086.

⁵⁰ Id.

As Circular A-4 further explains:

You generally should not, for example, end an analysis at a point before benefits or costs are likely to change in a way that could change the sign of the estimated net benefits, change the relative ranking of regulatory alternatives, or otherwise have effects relevant to the public or policymakers. If benefits or costs become more uncertain or harder to quantify over time, it does not follow that you should exclude such effects by artificially shortening your analytic time frame.⁵¹

Recommended Redline: The Corps should consider explicitly incorporating Circular A-4's guidance into its ASPs, as follows:

[234.7](l) *Timing*. The period of analysis for alternatives shall be documented clearly and with the appropriate justification in the analysis and used to evaluate each alternative. OMB Circular A-4 provides guidance on selecting an appropriate analytical timeframe to consistently encompass all important benefits and costs likely to result across all alternatives being assessed.

iv. The Corps Should Endorse Using the Value of Statistical Life (VSL) as well as the Social Cost of Greenhouse Gases (SC-GHG)

The proposal notes that, while "some other agencies use monetized life loss in various decisionmaking contexts, the proposed ASPs do not require monetization. The Army solicits comment on this issue."⁵² Monetizing the willingness to pay to avoid mortality risks is a longstanding best practice in agency analyses, as enshrined in Circular A-4,⁵³ and the Corps should absolutely follow suit. Failing to monetize important mortality and morbidity effects could severely skew the assessment of certain alternatives.

The proposal does endorse the use, where appropriate, of the social cost of greenhouse gases, though it somewhat strangely buries that in the preamble discussion of floodplains in Section 234.6 on the Planning Process.⁵⁴ The Corps should instead clearly state in Section 234.7 (i.e., the section on how to evaluate benefits and costs) that commonly applied metrics like the VSL and the SC-GHG should be used when appropriate. As W. Kip Viscusi has noted, especially in the domain of "water-resource projects," "government agencies place almost exclusive emphasis on the monetized effects," and effects that "received qualitative discussion . . . were largely set aside in factor of emphasis on the series of tangible economic benefits that were monetized."⁵⁵ The Corps should monetize the VSL and SC-GHG so policymakers who would fall into that "trap" for water-resource projects do not give mortality risks and climate effects unduly short shrift.

Recommended redline:

[234.7(b)(1):]... Where possible, including through use the best available estimates of the value of statistical life and the social cost of greenhouse gases, monetization enables

⁵¹ Circular A-4 at 10.

⁵² Proposed Rule, 89 Fed. Reg. at 12,081.

⁵³ Circular A-4 at 49–50 (citing standard practices developed by EPA, HHS, and DOT).

⁵⁴ Proposed Rule, 89 Fed. Reg. at 12,079.

⁵⁵ W. KIP VISCUSI, PRICING LIVES: GUIDEPOSTS FOR A SAFER SOCIETY 10 (2018); *see also id.* (arguing that, if mortality risks "are not monetized, the greater likelihood is that they will be treated as having zero or negligible value, not that they will be viewed as being more consequential than if the [monetized] numbers were not used").

the incorporation of the values placed on the benefits and costs evaluated, and provides a way to evaluate trade-offs in common analytical units (dollars). . . .

E. Recommended Changes to Section 234.9: Evaluate Effects of Alternatives

i. The Corps Should Eliminate the Three Categories, Which Falsely Suggest Sharp Distinctions Between Economic, Environmental, and Social Effects

Throughout the ASPs, the Corps identifies three distinct categories "to fully account for the costs and benefits of an alternative . . . : economic, environmental, and social."⁵⁶ However, the proposal also solicits "comment on whether to eliminate the three categories to simply account for all costs and benefits without further categorization which may make it easier to avoid double counting."⁵⁷ The Corps should eliminate the three categories.

To begin, the categories could misleadingly suggest that anything falling into the catchall of "social"—such as health, safety, and national security effects—may not deserve as much weight as "economic" and "environmental" effects that merited their own separate category. Moreover, the boundary lines between such various categories are often not clear. The Corps acknowledges as much when it solicits comments on which category (i.e., economic, social, or even environmental) to group "life safety benefits" into.⁵⁸ Health benefits have strong economic implications as well as social dimensions.

The proposal's own example of how to assign benefits into the three separate categories itself demonstrates how difficult and arbitrary these distinctions can be. The Corps imagines:

For example, an alternative that restores riparian habitat may reduce erosion, improving in-stream habitat for aquatic species and improving navigability for shipping and recreational boating. The benefit to aquatic species should be captured as an environmental benefit, the effect on shipping should be captured as an economic benefit, and the effect on recreational boating should be captured as a social benefit. These are *three distinct benefits* and all should be included as relevant.⁵⁹

But these benefits are not so neatly categorizable. Recreation is not just social, as it has obvious economic benefits through tourism and related spending. Species effects are similarly not just environmental if the relevant species is fished commercially or recreationally. And changes in shipping can have environmental as well as economic effects if the shipping volume affects the ecosystem. The rigid categorization suggested by the Corps could discourage analysts from considering the economic dimensions of recreational effects, the social dimensions of environmental effects, or the environmental dimensions of economic effects.

Notably, while Circulars A-94 and A-4 raise certain special considerations for environmental effects, health effects, and so forth, neither document recommends strict categorization or grouping of effects. Indeed, even the Ecosystem Services Guidance eschews similar categories: "This guidance does not require the use of [common ecosystem services] typologies, nor does it

⁵⁶ *E.g.*, Proposed Rule, 89 Fed. Reg. at 12,090.

⁵⁷ Id.

⁵⁸ *Id.* at 12,073.

⁵⁹ *Id.* at 12,091 (emphasis added).

preclude it."⁶⁰ So too with categories like "use" and "non-use" values: "As a general matter, most important for purposes of benefit-cost analyses is ensuring that each relevant value is captured; how agencies categorize edge cases is often less relevant."⁶¹ The Corps should reinforce that it is moving away from the historically rigid and narrow set of four "accounts" to a broader assessment of all important benefits and costs, by eliminating the three categories.

ii. The Corps Should Explicitly Follow OMB Guidance on Discount Rates

The Army solicits comment on "whether the selection of discount rates, and consideration of declining discount rates should follow the guidance in OMB Circulars A–4 and A–94."⁶² Unquestionably, yes. The Circulars reflect the best economic practices on discounting, with both having gone through public comment and the former having undergone peer review. The Corps should be consistent and adopt OMB guidance. Rather than quoting particular discount rates, the ASPs should cross-reference the relevant documents, so as to remain current as the OMB guidance and particular discount rate recommendations are updated over time. The guidance documents note that OMB will update the discount triennially to reflect new economic data.⁶³

iii. The Corps Should Move Its Footnote on OMB Guidance into Main Text

As compared to other sections of the regulatory text that cross-reference OMB guidance, Section 234.9(c)'s reference to the Circulars is somewhat buried in a footnote. The Corps should move this important footnote up to the main text.

Recommended redline:

[234.9](c) *Consideration of benefits and costs.* ... To the extent practicable, such costs and benefits must be quantified in a scientifically valid and acceptable way, and such quantified costs shall be monetized where practicable.⁶¹ The Corps shall in general follow OMB Circulars A-4 and A-94....

F. Recommended Changes to Section 234.10: Compare Alternatives

The Corps solicits comments on how to compare alternatives and evaluate tradeoffs,⁶⁴ and in particular "whether the Corps should pursue a more straightforward approach, using maximizing the net benefits as a primary metric for use in comparing the alternatives and evaluating the tradeoffs, and to clarify the decision framework."⁶⁵

Throughout both the regulatory text and preamble for Section 234.10, the Corps should clarify that benefit-cost analysis is an appropriate decision framework, and net benefit maximization is an appropriate decision criterion. To present different categories of costs and benefits and to weigh tradeoffs in apples-to-apples terms, cost-benefit analysis is a reasonable, widely accepted, and rigorous approach. And as Circular A-94 explains, "When a project is expected to have

⁶⁰ ECOSYSTEM SERVICES GUIDANCE, *supra*, at 3.

⁶¹ *Id.* at 11 n.35. While this guidance is specifically "for purposes of benefit-cost analyses," *id.*, the principle applies more broadly to accounting for benefits or costs in any domain.

⁶² Proposed Rule, 89 Fed. Reg. at 12,091.

⁶³ Circular A-4 at 77.

⁶⁴ Proposed Rule, 89 Fed. Reg. at 12,091–92.

⁶⁵ *Id.* at 12,092.

differential effects on subgroups of the population, agencies should consider analyzing and discussing these effects, to the extent feasible and appropriate, along with the analysis of discounted net benefits."⁶⁶ The Corps can simplify its overall approach by organizing all of its various "objectives,"⁶⁷ "guiding principles,"⁶⁸ and other evaluation considerations⁶⁹ within the rubric of benefit-cost analysis informed by distributional analysis.

The Corps requests advice on this issue with particular attention to the use of frameworks that prioritize resilience considerations and analyzing "a multi-dimensional problem with complex tradeoffs between monetary and non-monetary outputs and quantitative and qualitative data."⁷⁰ Under a benefit-cost analysis, in line with best economic practices and OMB guidance, decisionmakers should fully consider all impacts—including unmonetized and unquantified effects. Accordingly, resilience effects should still be fully considered even when they cannot be fully monetized or quantified. Consistent with its discussion of the importance of unquantified and unmonetized effects throughout the Proposed Rule and Preamble, the Corps should specify this understanding of benefit-cost analysis and integrate insights from other resilience frameworks as applicable.

Conclusion

In moving away from the overly narrow focus on national economic development, the proposal takes valuable steps toward more comprehensive accounting of societal benefits and improved decisionmaking. As the useful draft Regulatory Impact Analysis explains, by taking a broader look at the benefits and costs of water resource project alternatives, the proposal can facilitate better decisions and so increase public welfare.⁷¹ Further aligning the ASPs with OMB guidance and with other best economic practices will enhance those outcomes.

Sincerely,

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⁶⁶ Circular A-94 at 15 (addressing distributional analysis).

⁶⁷ See id. at 12,071–72 (describing proposed Section 234.4(b)).

⁶⁸ See id. at 12,077–82 (describing proposed Section 234.6(c)).

⁶⁹ See id. at 12,086–90 (describing proposed Section 234.7).

⁷⁰ Proposed Rule at 12,091–92.

⁷¹ ARMY CORPS OF ENG'RS, REGULATORY IMPACT ANALYSIS FOR THE PROPOSED RULE 1 (Feb. 2024).